

1/19

FIG. 1(I)

10	20	30	40	50	60
MGFTSGPFL	LLLTTHLPLA	LGSPMYSTIT	PNILRLSEEE	TMVLEAHDAQ	SDVPVTVTH
70	80	90	100	110	120
DFFPGKHLVLS	SEKTVLTPAT	NHMGNVTTTI	PANREFKSEK	GRNKFTVCA	TFGTQVVEKV
130	140	150	160	170	180
VLVSLOSGL	FICTDKTIYT	FGSTVLYRIF	TVNHKLLFVG	RTVMVNIENP	EGIPVKODSL
190	200	210	220	230	240
SSONOLGVLP	LSWDIPELVN	MGQWKIRAYY	ENSPQCVFST	EFEVKETVLP	SFEVIVEPTE
250	260	270	280	290	300
KFYTYTNEKS	LEVTTITARFL	YGKKVEGTAF	VIFSGDGGEC	RISLPESLKR	TFEDGSGEV
310	320	330	340	350	360
VLSRKLIDG	VONPRAEDIV	GKSLYVSATY	ILHSGSDMVQ	AERSGIFVT	SPYQIHFTKT
370	380	390	400	410	420
PKYTKPGMPF	DLMVFTNFD	GSPAYRVFVA	VOGDTVCSL	TCGDGVAKLS	INTHP SOKPL
430	440	450	460	470	480
SITVATKKCE	LSEALCATFT	MOALPYSTVG	NSNNYLHLSV	LRTELAPGET	LNVNELLRMD
490	500	510	520	530	540
RAHEAKIRYY	TYLIMNKGR	LKAGROVREF	GODLVVLFLE	ITTDIFPSFR	LVAYYTLIGA
550	560	570	580	590	600
SGOREVVADS	VWVDVKDSV	GSLVVKSGQS	EDROPVFGQC	MTLKIEGDHG	ARVVLVAVDK
610	620	630	640	650	660
GVTFLNKKNK	LTOSKIWDV	EKADIGCTFG	SGKDYAGVTS	CAGLTFTSSS	GGCTAORAE
670	680	690	700	710	720
CCPQFAARRR	RSVQLTEKRM	DKVGKYPKEL	RKCEDGMRE	NPMRFSCQRR	TFISLGEAC
730	740	750	760	770	780
KKVFLLCCNY	ITELRRHAR	ASHLGLARSH	LDEDIIAEEN	IVSRSEFPES	WLWNVEDLKE
790	800	810	820	830	840
PPKNGISTKL	MNIFLKESIT	TWEILAVSMS	DKKGTGVADP	FEVTVMQDFF	IDLRLPYSVV
850	860	870	880	890	900
RNEQVEIRAV	LYMYRONOEL	KVRVELLHNF	AFCELATTKR	RHOCTITIPP	KSSLVPPYVI
910	920	930	940	950	960
VPLKTLGCEV	EVKAAYVHMF	ISDGVKSLK	VVFESIRMNK	TVAVRTLOPE	ALGREGVOKE
970	980	990	1000	1010	1020
CCPFALESC	WDTESETRE	LLOSTFVACM	TEDAVDAERL	KHLIVTFSGC	GEONMIGMTP
1030	1040	1050	1060	1070	1080
TVIAYVYLED	TEOWEKFGLE	KROGAELEIK	KSYTOGLAFR	OFSSAFAAFTV	KRAPSTWLTA
1090	1100	1110	1120	1130	1140
YVVKTSLSAV	NLIAIDSOVL	CGAVKWLLE	KOKFDGVTCE	DAPVTHOEMI	GGLRNNNEKD
1150	1160	1170	1180	1190	1200
MALTAFLVLS	LOEAKDICEE	OWNSLFSSIT	KAGDFLEANY	MWLPORSYTA	IAGYALAOMG

SUBSTITUTE SHEET (RULE 26)

09875519-050504

2 / 19

1210	1220	1230	1240	1250	1260
RLKGFLLNKF	LTTAKDKNRW	EDFGKQLYNV	EATEYALLAL	LQKDFDFVP	PVVRWLNEQR
1270	1280	1290	1300	1310	1320
YYGGGYGSTQ	ATFMVFCALA	CYCKDAPDHO	ELNLDVSLGL	PSRSKITHR	IHWESASLLR
1330	1340	1350	1360	1370	1380
SEETKENEGF	TVTAEKGKGG	TLSVVTMYHA	KAKDQLTCIK	FDLKVTIKFA	PETETRPQDA
1390	1400	1410	1420	1430	1440
KNTMILEICT	RYRSGDODATM	SILDISMMTG	FAPDTDDLKC	LANGVDRYIS	KYELDKAFSD
1450	1460	1470	1480	1490	1500
RNTLIITYLDK	VSHSEDDCLA	FKVHOYFNVE	LIQPGAVKVY	AXYNLEESCT	RFYHPEKEDG
1510	1520	1530	1540	1550	1560
KLNLKCRDEL	CRCAEENCFI	QKSDDKVILE	ERLDKACEPG	VDYVTKIRLV	KVGLSNDFDE
1570	1580	1590	1600	1610	1620
YIMAIECTIK	SGSDEVQVGO	QRTFISPIKC	REALKLEKK	HYLMWGLSSD	FWGEKPNLSY
1630	1640	1650	1660		
IIIGKOTWVEH	WPEEDECODE	ENQKQCQCLG	AFTESMVVFG	CPN	

FIG. 1(II)

3 / 19

FIG. 2(I)

cctctccct	ctctccctct	gtccctctga	ccctccactg	ccccagcacc	
12	20	30	40	50	60
atgggaccca	cctcaggcc	caacccgctg	ctcctgctac	taacccaccc	ccccctggct
70	80	90	100	110	120
ctggggagtc	ccatgtactc	tatcatcacc	cccaacatct	tcggggctggg	gagcgaggag
130	140	150	160	170	180
accatggcc	tcggagggcca	cgacgcgcga	ggggatgttc	cactcactct	tactgtccac
190	200	210	220	230	240
gacttccccg	gcaaaaaact	agtgcctctc	agtgaagaqa	ctgtgtctgac	ccctgcccac
250	260	270	280	290	300
aaccacatct	gcaacgtcc	cttcacgttc	ccagcccaaca	gggaacttcaa	gtcagaaaaq
310	320	330	340	350	360
gggtcccaaca	agttcgtgac	cgtccaggtc	accttcggga	cccaagtggt	ggagaagggtg
370	380	390	400	410	420
gtctctggcca	gtctgcagag	cggttacctc	ttcatccaga	caqacaagac	catctacacc
430	440	450	460	470	480
ccctggctcca	cagtctctcta	tcggatcttc	accttcaacc	acaagctgct	acctgtgggc
490	500	510	520	530	540
cgagcggcca	tggtcaacat	tgagaacctg	gaaggcatcc	cggtcaagca	ggactctctg
550	560	570	580	590	600
ccccctcaga	accagctctg	cgtcttgcgc	ctgtctctgg	acattccgga	actcgtcaac
610	620	630	640	650	660
atgggccaat	ggaaatctcc	agcctactat	gaaaaactcc	cacagcaggt	cttctccact
670	680	690	700	710	720
gactttgagg	tgaaaggagta	cgtctctccc	agtttccagg	tcatagtgga	gtctacagag
730	740	750	760	770	780
aaattctact	acatctataa	cgagaagggtc	ctggagggtca	ccatcaccgc	caggtctctc
790	800	810	820	830	840
tacgggaaga	aagtggagggt	aactgcctct	gtctctctctg	ggatccagga	tggtcaacag
850	860	870	880	890	900
aggatttccc	tgcttgaaac	cctcaagcgc	attccgattg	aggatgggtc	gggggagggtt
910	920	930	940	950	960
gtcttcagcc	ggaaaggtact	gtctgcaggt	gtccagaaac	cccagcaga	agacctgggtg
970	980	990	1000	1010	1020
gggaagctct	tgtactgtct	tcaccaccgc	atcttcgact	caggtcagta	catgtgtcag
1030	1040	1050	1060	1070	1080
gcagagccca	tcgggtatccc	catcgtgacc	tcctccctacc	agatccacct	caccaagaca
1090	1100	1110	1120	1130	1140
cccaagtaact	tcaaaccaag	aatgccctct	gacctctctg	tggttcgtgac	gaacctctgat
1150	1160	1170	1180	1190	1200
ggctccccag	cttaccaggt	ccccgtggca	gtccaggggt	aggacactgt	gcagctctcta
1210	1220	1230	1240	1250	1260

FIG. 2(II) 4/19

acccaggag 1270	atggcgtggc 1280	caaacctcagc 1290	atcaacacac 1300	accccaagcca 1310	gaagcccttg 1320
agcatcacgg 1330	tccgcacgaa 1340	gaaacaggag 1350	ctctcggagg 1360	cagagcaggg 1370	taccaggacc 1380
atgcaggctc 1390	tcccttacag 1400	caccctgggc 1410	aactccaaca 1420	attacctgca 1430	tctctcagtg 1440
ctacgtacag 1450	agctcagacc 1460	cggggagacc 1470	ctcaacctca 1480	acttcctcct 1490	gcgaatggac 1500
cgcgcccacg 1510	agcccaagat 1520	ccgctactac 1530	acctacctga 1540	tcatgaacaa 1550	gggcaggctg 1560
ctgaaggcgg 1570	gaccccaagg 1580	gcgagagccc 1590	ggcaggacc 1600	tggcggctct 1610	gcccccttcc 1620
atcaccaccg 1630	acttcacccc 1640	tcccttcggc 1650	ctggcggcgt 1660	actacacgct 1670	gaticggctc 1680
agcggccaga 1690	gggaggtggc 1700	ggccgacccc 1710	ctctcggctg 1720	acgtcaaggga 1730	ctcctcggctg 1740
ggctcggctg 1750	tggtaaaaaa 1760	ccgccaactca 1770	gaaacacggc 1780	agcctgtacc 1790	tgggcaagcag 1800
atgacctga 1810	agatagaggc 1820	tgaccacggc 1830	gccccggctg 1840	tactggctgg 1850	cgtggacaag 1860
ggcgtgttcg 1870	tgcctgaataa 1880	gaaagaacaaa 1890	ctgacgcaga 1900	gtaaagatctg 1910	ggacgtggctg 1920
gagaaagcag 1930	acatcggctc 1940	caccccgggc 1950	agtgggaagg 1960	attacggcgg 1970	tgtcttctcc 1980
gacgcaggcc 1990	tgaccttcac 2000	gagcagcaat 2010	ggccagcaga 2020	ccgcccagag 2030	ggcagaactt 2040
cagtcggccc 2050	agccagcccc 2060	ccgcccagcc 2070	cgcttcggct 2080	agctcacgga 2090	gaaacgaatg 2100
gacaaaactc 2110	gcaaactacc 2120	caaggagctc 2130	gcgaactgct 2140	ggcaggacgg 2150	catgcgggag 2160
aaacccatga 2170	ggcttcctgt 2180	ccaagccccc 2190	acccgtttca 2200	tctccctggg 2210	cgagggctgc 2220
aagaaggtct 2230	tcttggaact 2240	ctgcaactac 2250	atcacagacc 2260	tgcggcggca 2270	gcacgcgggg 2280
ggcagccccc 2290	tgggcccctg 2300	caggagtaac 2310	ctggatgagg 2320	acatcatttc 2330	agaaagaaac 2340
atcgtttccc 2350	gaaatgagct 2360	cccaagagac 2370	tggctgtgga 2380	acgtcagagg 2390	cttgaaagag 2400
ccaccgaaaa 2410	atgggaattc 2420	tacgaagctc 2430	atgaatatat 2440	ttttgaaaga 2450	ctccatcacc 2460
acgtcgggga 2470	ttctcggctc 2480	gagcatgtcg 2490	gacaaagaaa 2500	ggatctcttc 2510	ggcagacccc 2520
ctcagagctc 2530	cagtaattcc 2540	ggactttctc 2550	atcccctcgc 2560	ggctacccca 2570	ctctgtctct 2580

FIG. 2(III) 5/19

ccgaaacgagc 2590	aggctggaat 2600	ccgagccggtt 2610	ctctacaatt 2620	accggcagaa 2630	ccaagagctc 2640
aaagctgaggg 2650	cggaaactact 2660	ccacaatcca 2670	gccttcttcca 2680	gcctggccac 2690	caccaagagg 2700
ccctcaccagc 2710	agaccataac 2720	catcccccct 2730	aaatccctcct 2740	tgctccgttcc 2750	atatgtctatc 2760
gtcccccctaa 2770	agaccgggctt 2780	ccagggaaagt 2790	gaagtcaagg 2800	ctgctgtctca 2810	ccatcattctc 2820
atcagtgagc 2830	gtctcagga 2840	gtccctgaa 2850	gtcgtgccc 2860	aaaggaaatcag 2870	aatgaacaaa 2880
accgtggctc 2890	ctccacacct 2900	ggatccagaa 2910	ccctcgggct 2920	gtgaaaggagt 2930	gcagaaaagag 2940
gacatccccac 2950	ctccagacct 2960	cagtgaccaa 2970	gtcccgaca 2980	ccgagtctga 2990	gaccagaattc 3000
cccccccaag 3010	ggacccccagt 3020	ggccccagatc 3030	acagaggatc 3040	ccgtccagcc 3050	ggaaacggctc 3060
aaacacacctca 3070	ctgtgacctc 3080	ctcgggtctgc 3090	ggggaaacaga 3100	acatgatccg 3110	catgacctccc 3120
accgtcatcc 3130	ctgtgcattca 3140	ctcggatgaa 3150	acggagcact 3160	gggagaaagt 3170	ggccctagag 3180
aaacccgagc 3190	ggccctctgga 3200	gctcatcaag 3210	aaagggtaca 3220	cccagcagct 3230	ggccctcaga 3240
caacccagcc 3250	ctcccttttc 3260	ggcccttcgt 3270	aaacggccac 3280	ccagccacct 3290	gctgacctccc 3300
caagctgctca 3310	aggctctcttc 3320	tctggtctgtc 3330	aacctcatcg 3340	ccatcgactc 3350	ccaagtccctc 3360
ctccgggctc 3370	ctaaatggct 3380	gatccctggag 3390	aaacagaaac 3400	ccgacggggt 3410	ctcccaggag 3420
gatgcccccc 3430	tgatcaccca 3440	agaaatgatt 3450	ggcggattac 3460	ggaacaacaa 3470	cgagaaaagac 3480
atggccccca 3490	ccgccccctc 3500	tctcatctcc 3510	ctgcaggagg 3520	ctaaaagatat 3530	ctgcgaggag 3540
caggtcaaca 3550	gcctcccaag 3560	cagcatcact 3570	aaagcaggag 3580	acttccctcga 3590	agccaaactac 3600
atgaaacctc 3610	agagatccct 3620	cactgtggcc 3630	attgctggct 3640	atgctctcgg 3650	ccagatgggg 3660
aggtccaaag 3670	ggcctcttct 3680	taacaaattt 3690	ctgaccacag 3700	ccaaagatca 3710	gaacccgtctg 3720
gaggaaacctc 3730	ctaaagcagc 3740	ctacaacctc 3750	gaggtccacat 3760	ccatagccct 3770	ctcgggacctc 3780
ccgcaacctca 3790	aaagctctcga 3800	ctttgtgctc 3810	ccggtcgtgc 3820	gttgggtcaa 3830	tgaaacagaga 3840
ctctacggctc 3850	gtggctatgg 3860	ctctacccag 3870	gccaccttca 3880	tggtgttcca 3890	agccctcggct 3900

FIG. 2(IV)

caataaccaaa 3910	aggaacgcccc 3920	tgaaccaccag 3930	gaactgaacc 3940	ttgatgtgtc 3950	ccccaaactg 3960
cccaagccgca 3970	gtcccaagat 3980	cacccaccgt 3990	atccactggg 4000	aatctgccag 4010	cttctctgga 4020
tcagaagaga 4030	ccaaggaaaa 4040	tgaagggtttc 4050	acaatcacag 4060	ctgaaggaaa 4070	agggccaaggc 4080
accttgtccg 4090	tgggtgacaat 4100	gtaccatgtc 4110	aaggccaaag 4120	atcaactcac 4130	ctgtaataaa 4140
ttcgacctca 4150	aggtcaccat 4160	aaaaaccagca 4170	ccggaaacag 4180	aaaagaggcc 4190	tcaggatgcc 4200
aagaacacta 4210	tgatacttga 4220	gatctgtacc 4230	aggtaccggg 4240	gagaccaggga 4250	tggcaactatg 4260
tctatatattg 4270	acatatccat 4280	gatgactggc 4290	tttgcctccag 4300	acacagatga 4310	cttgaagcag 4320
ctgggccaatg 4330	gtgttgacag 4340	atacatctcc 4350	aagtatgagc 4360	tggacaaaagc 4370	cttctccgat 4380
aggaacaccc 4390	tcatcatcta 4400	cctggacaaag 4410	gtctcacact 4420	ctgaggatga 4430	ctgtctagct 4440
ttcaaaatttc 4450	accaataactt 4460	taatctagag 4470	cttztccagc 4480	ctggagcagt 4490	caaggctctac 4500
gcttattaca 4510	acctggagga 4520	aagctgtacc 4530	gggttctacc 4540	atccggaaaa 4550	ggaggatgga 4560
aagctgaaca 4570	agctctggcg 4580	tgatgaactg 4590	tggccctgtg 4600	ctgaggagaa 4610	ttgcttcata 4620
caaaaattgg 4630	atcacaaagt 4640	cacccctggaa 4650	gaacggctgg 4660	acaaggcctg 4670	tgaaccaggga 4680
gtggacttatg 4690	tgtacaagac 4700	ccgactggtc 4710	aaggttcagc 4720	tgtcczatga 4730	ctttgacgag 4740
tacattctgg 4750	ccattgagca 4760	gacctccaaag 4770	tcaggtctcg 4780	atgaggttga 4790	ggttcggacag 4800
caagccacgt 4810	tcatcagccc 4820	cattcaagtgc 4830	agagaagccc 4840	tgaagcttga 4850	ggagaaagaaa 4860
cactacctcc 4870	gttggggctct 4880	ctctctccgat 4890	ttcttggggag 4900	agaaagcccaa 4910	ctctcagctac 4920
atctctccgga 4930	aggacacttg 4940	ggttggagcac 4950	tggcctgagg 4960	aggacgaattg 4970	ccaagacgaa 4980
gagaaaccaga 4990	aacaatgcaca 5000	ggacccctggg 5010	gacctcacccg 5020	agagcatgggt 5030	tgtctttgggg 5040
tcccccaact 5050	gaccacaccc 5060	ccattccc 5070	gaggtgaggg 5080	gaggtgaggg 5090	gaggtgaggg 5100

SECRET

7/19

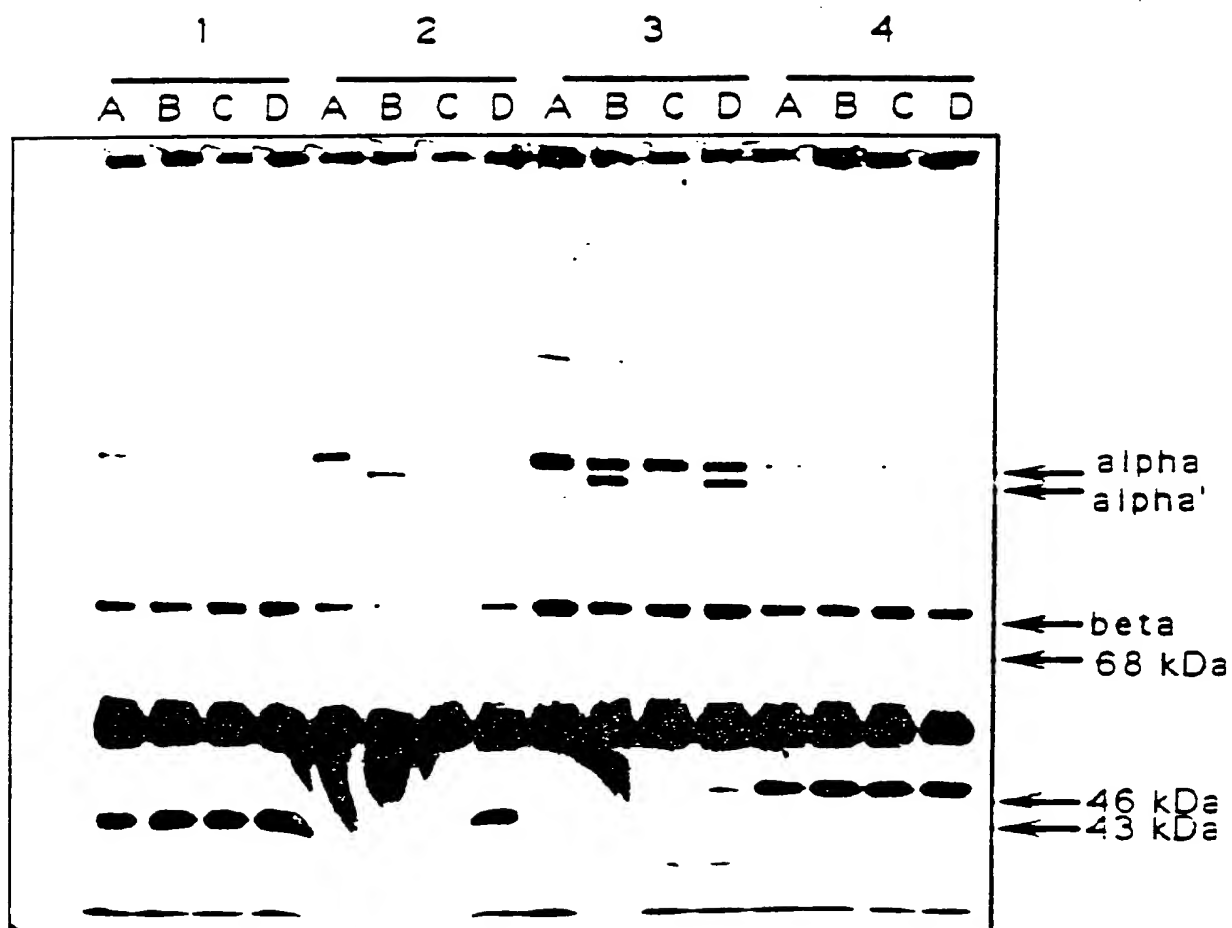


FIG. 3

8 / 19

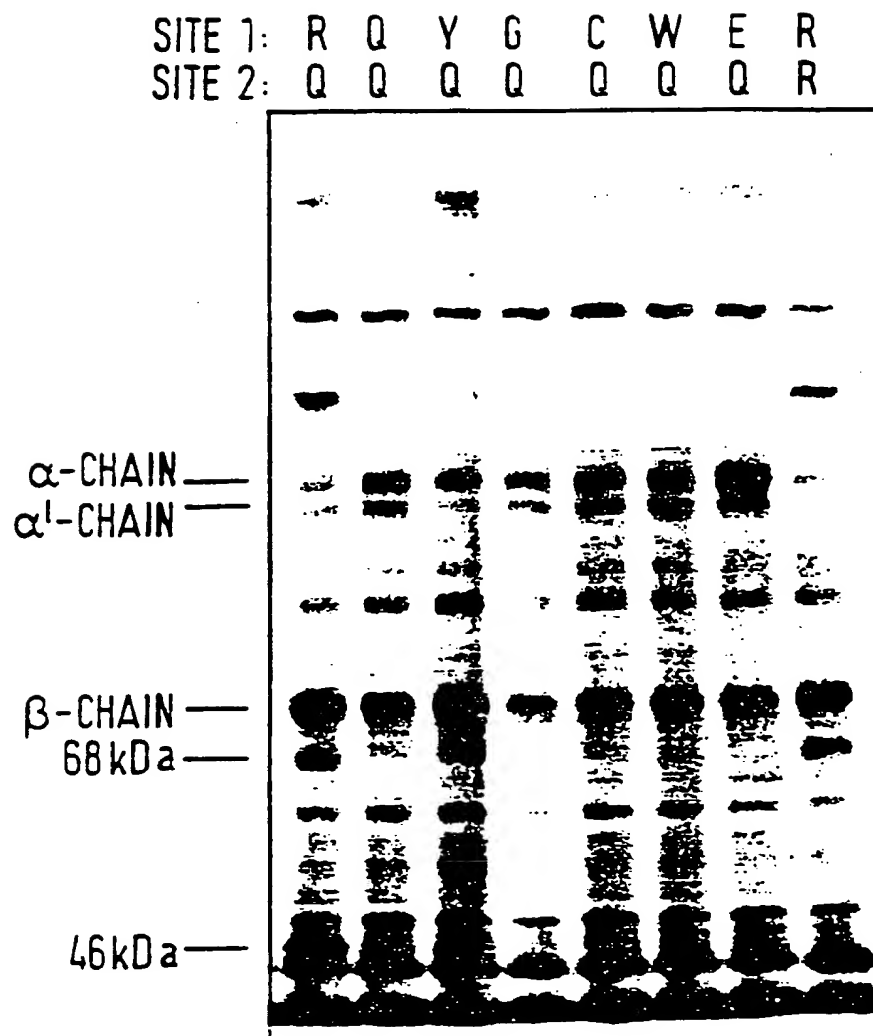


FIG. 4

9 / 19

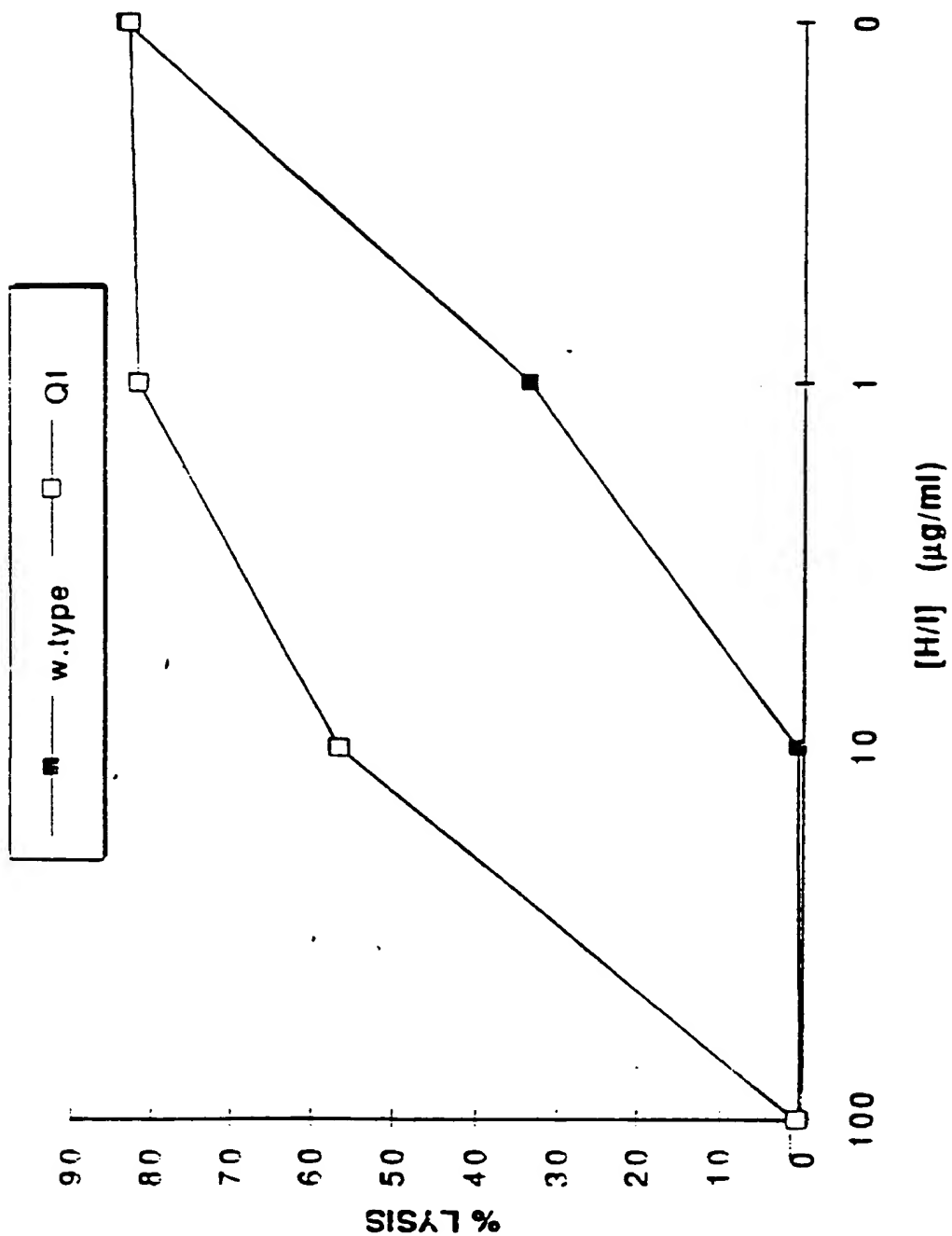


FIG. 5

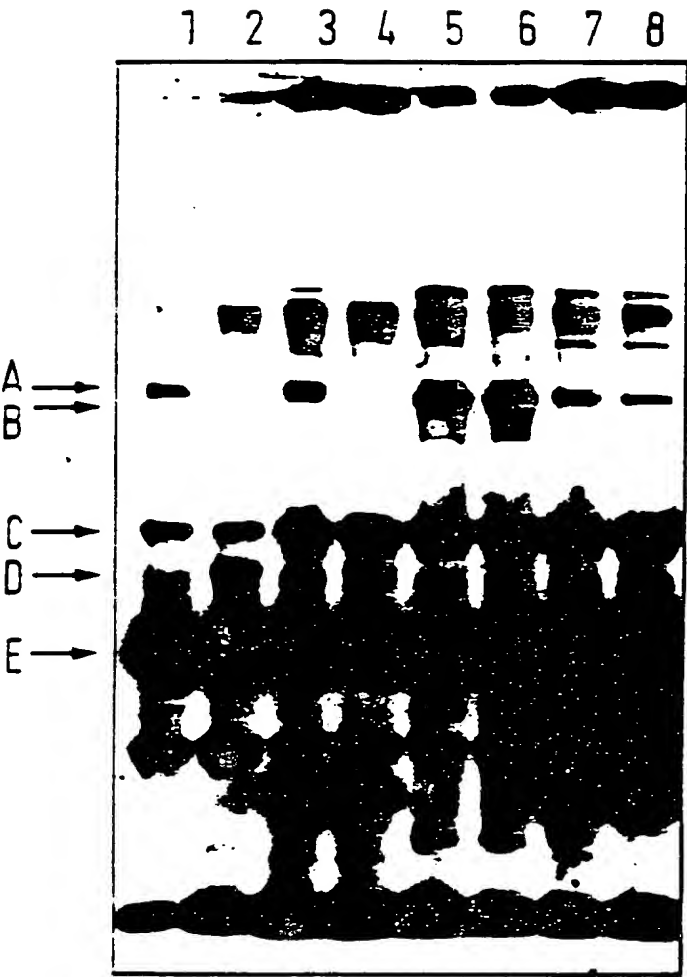


FIG. 6

09875519 060601

11/19

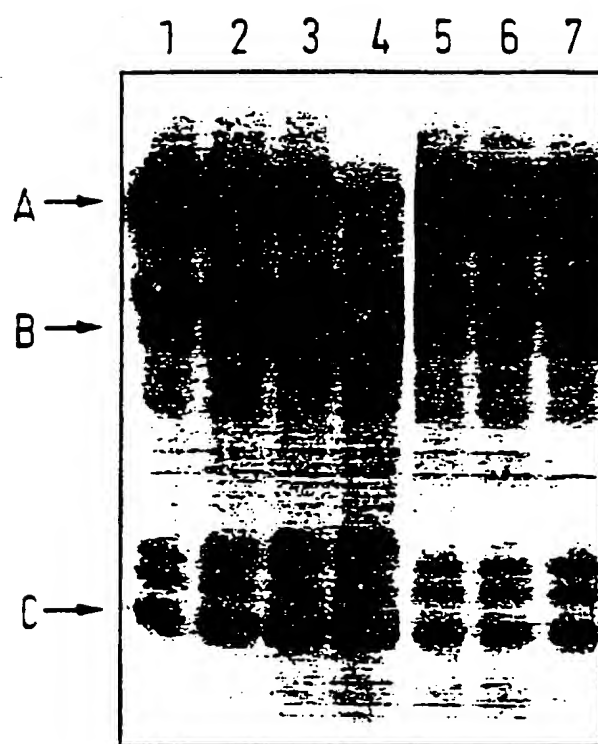


FIG. 7

09875519.060601

12 / 19

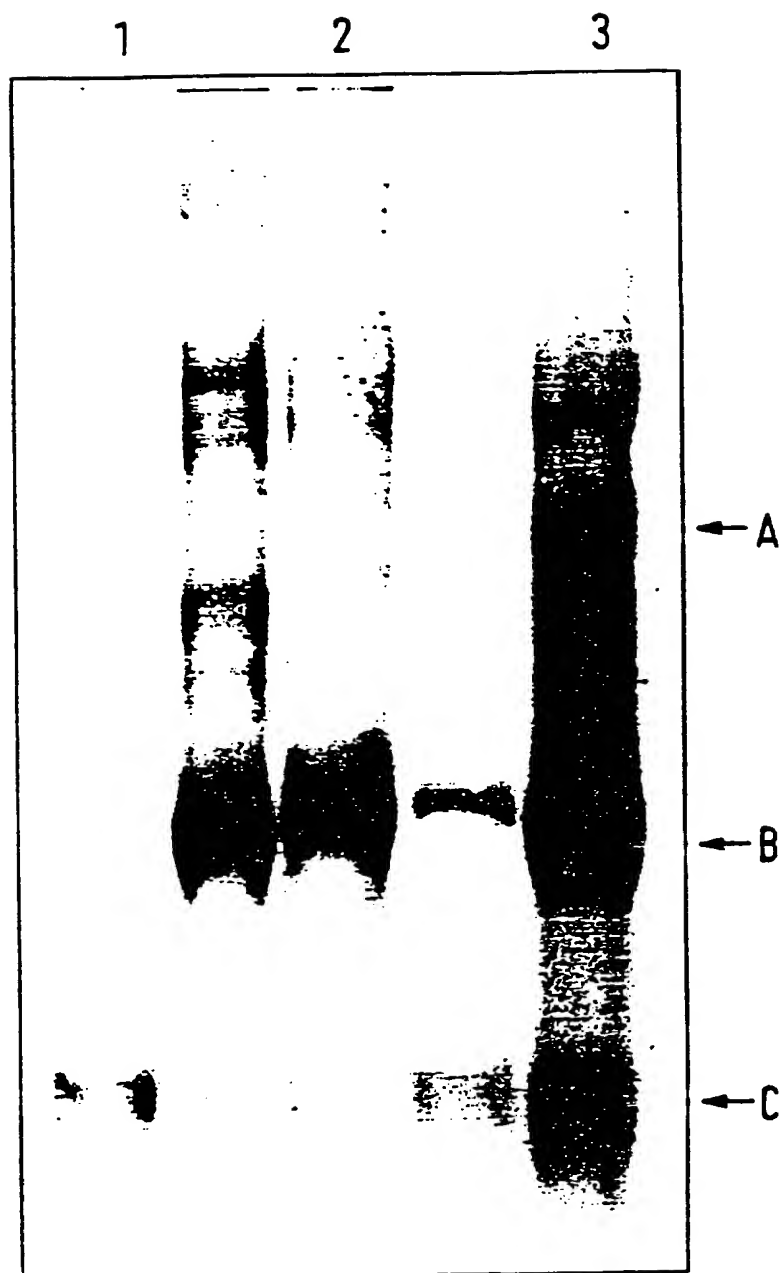


FIG. 8

13 / 19

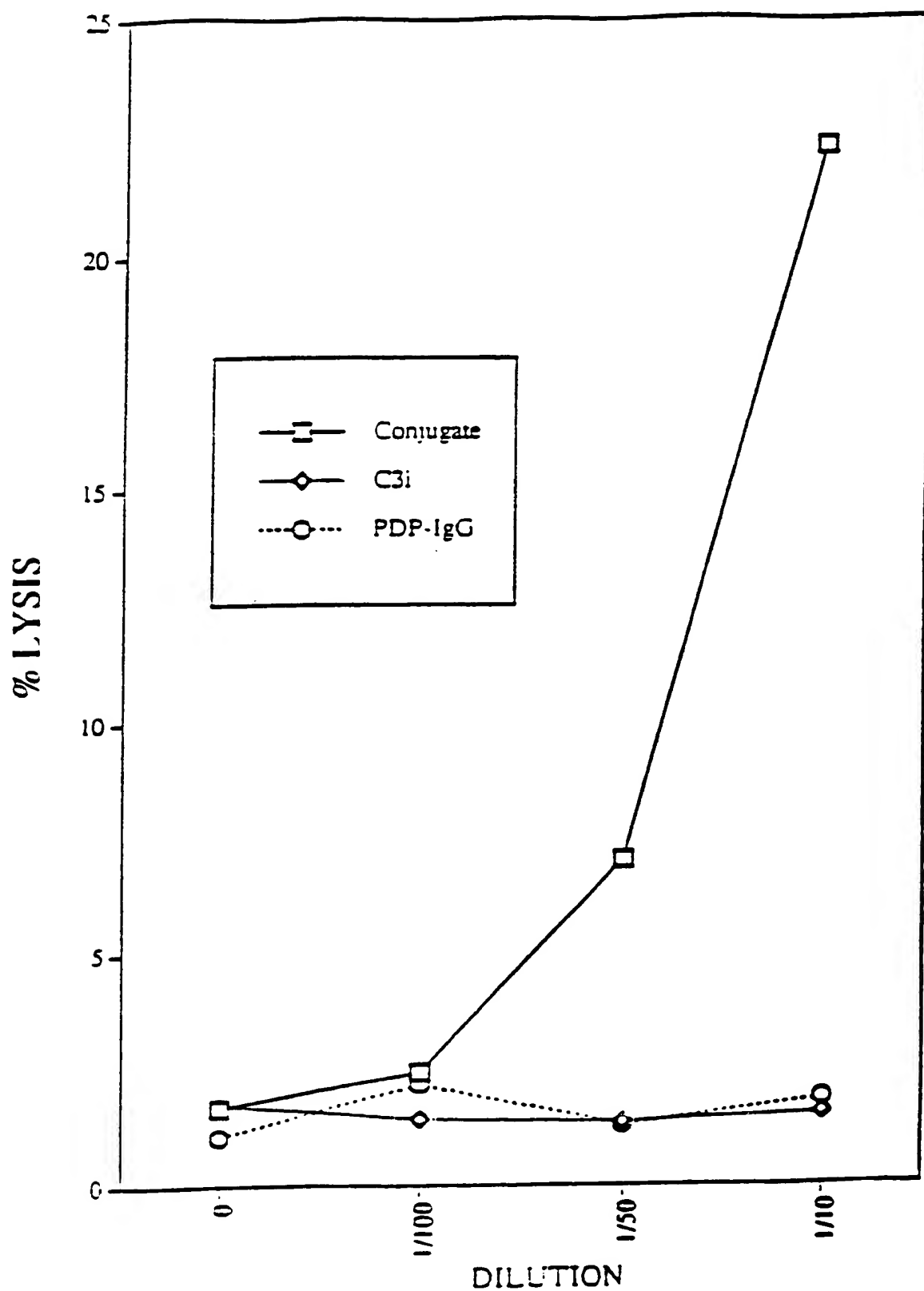


FIG. 9

SUBSTITUTE SHEET (RULE 26)

14 / 19

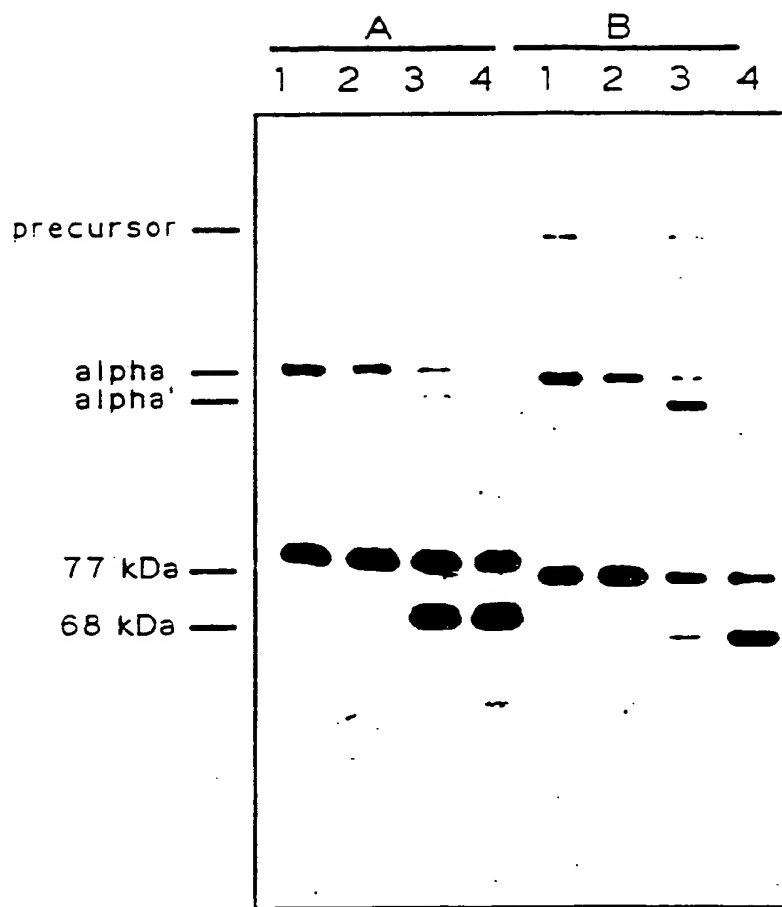


FIG. 10

FO9090"6T554860

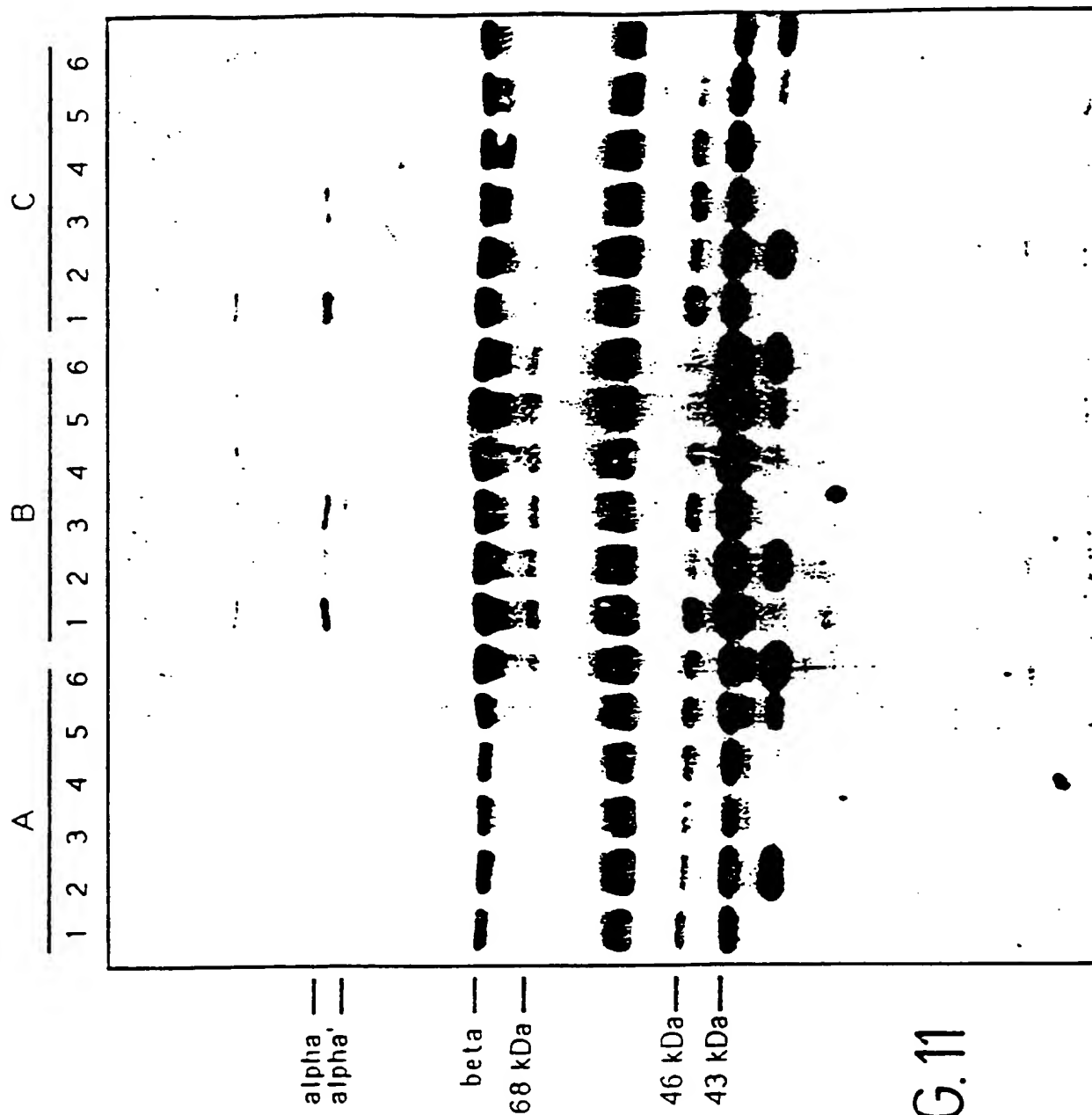


FIG.11

16 / 19



FIG. 12

17/ 19

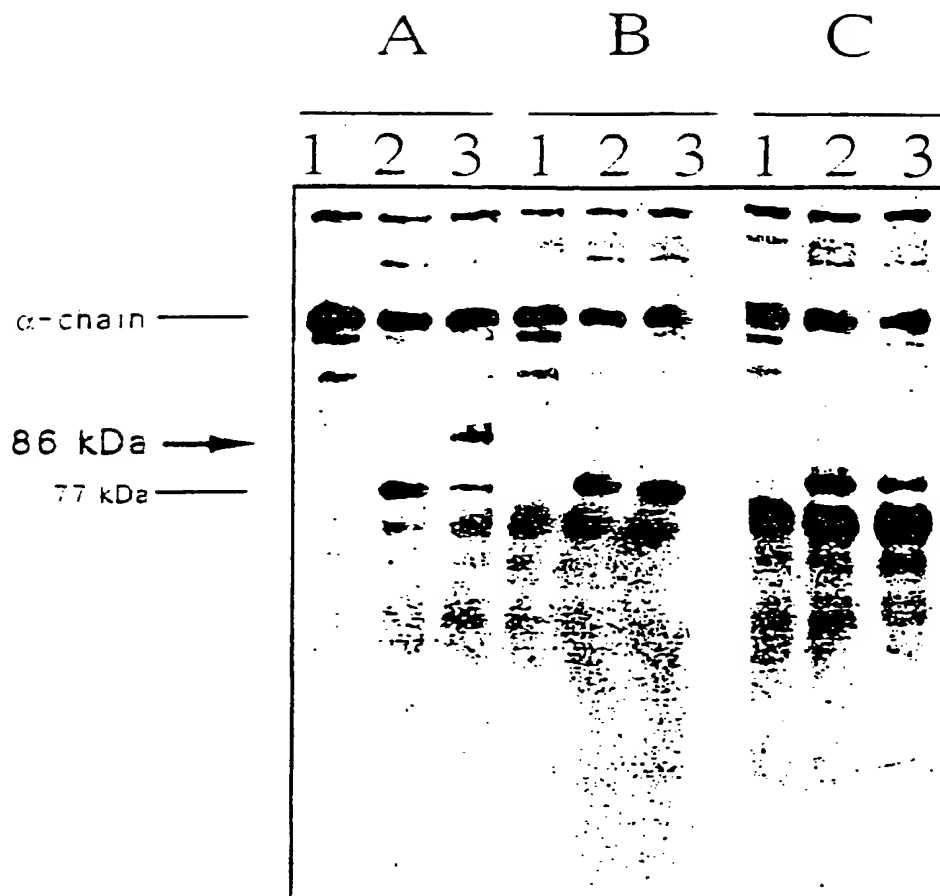


FIG. 13

18 / 19

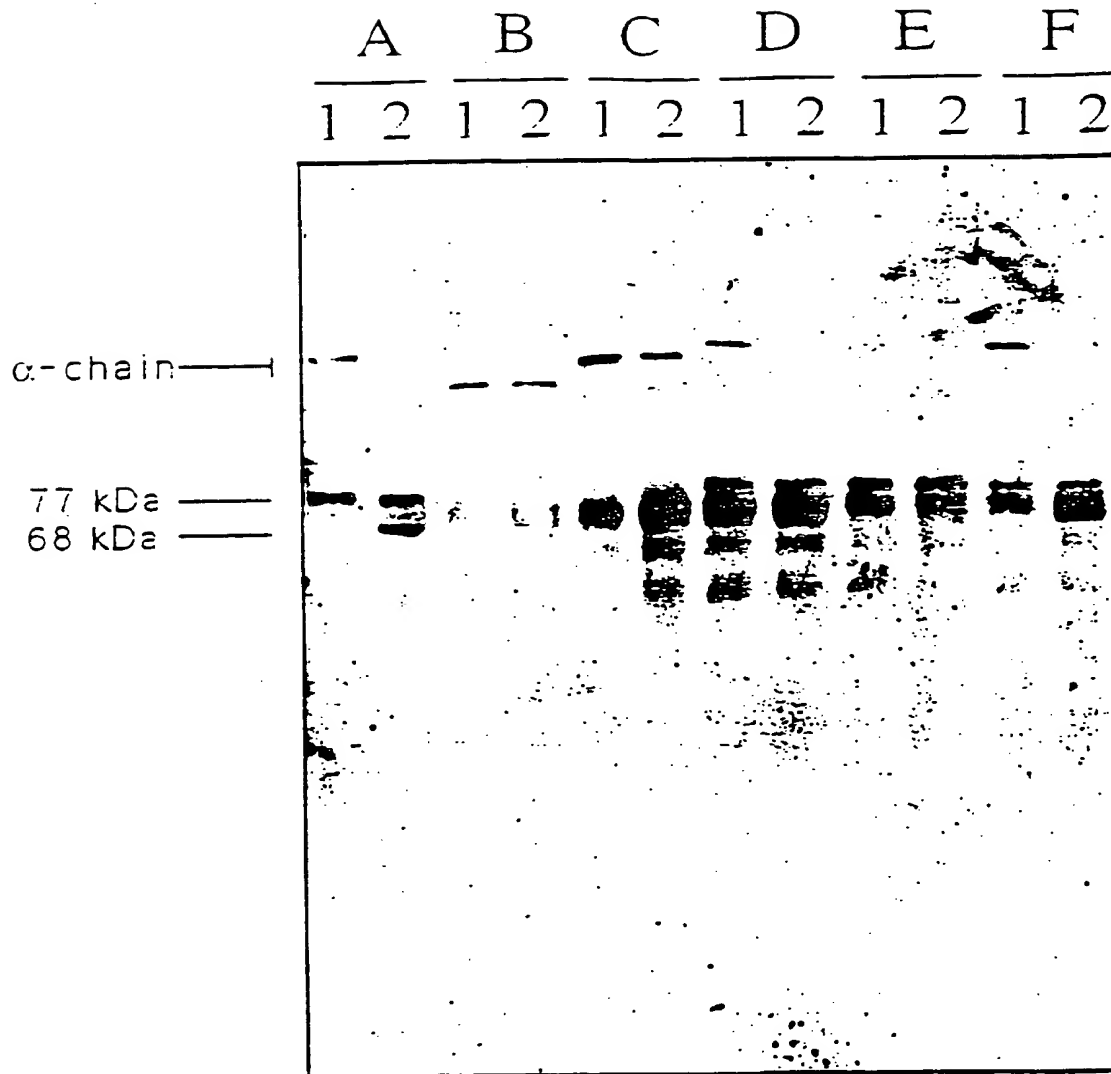


FIG. 14

09875519.060601

19/19

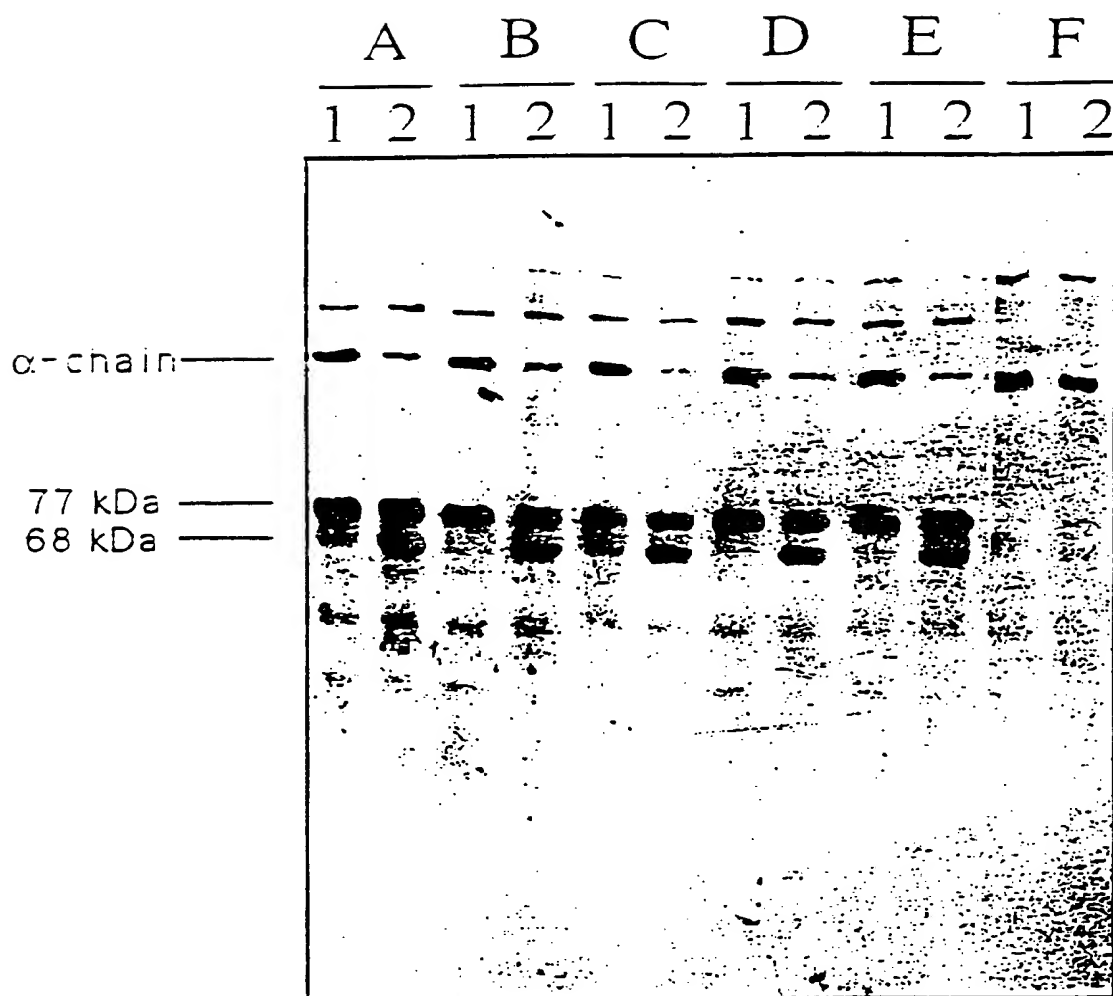


FIG. 15

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☒ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER:** _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.